SYRACUSE UNIVERSITY

Access to Electronic Government Information:
Key Issues from a User's Perspective

Charles R. McClure, Distinguished Professor <cmcclure@mailbox.syr.edu.
Syracuse University, School of Information Studies

For

Defense Technical Information Center Annual Users Conference
November 5, 1997

As more government information services and resources are made available in the networked, and Web environment, access to and use of these services and resources takes on increased importance. A user perspective considers the culture of the communities and subcommunities targeted for use; the relationship between community norms and the use of networked resources and services; effects of networks on collaboration, scholarly communication, and electronic commerce; definitions of eligible users and acceptable uses; relationships among users in academia, government, and the private sector; and the training and support of on-site and remote users of networked facilities. The perspective considers issues such as:

- How can the use of electronic networks facilitate the tasks and goals of particular communities of users?

- What problems do particular groups of users face in attempting to exploit networked information for the accomplishment of those tasks and goals?

- What design, management, and policy strategies can alleviate those problems and maximize network use and effectiveness?

These, and similar questions can be approached by developing and implementing on-going user-based evaluations of networked information services.

A user perspective assumes that information technologies should not be designed and implemented according to technical criteria alone, but should take into account the particular communication behavior, information use patterns, and work environments of potential users. This perspective will help network designers, program managers, webmasters, and users avoid conflicts and:

- Develop a range of user-based performance measures that assess networked services

- Understand and estimate the impact and benefits of network use

- Choose appropriate network designs, features, and services

- Devise appropriate strategies for marketing network services and promoting network use

- Develop effective policies for network management and use

- Develop appropriate mechanisms for user training and support

- Evaluate the effects of network implementation (extensiveness, efficiency, effectiveness, impact, and customer satisfaction).

Adopting a user perspective for evaluating networked information services offers a useful model to better understand the role, importance, and impact of networked information services in a range of organizational settings.

The following recent efforts have explored user-based evaluation approaches for assessing networked information resources and services and may be of interest to attendees:

- William E. Moen and Charles R. McClure. *An Evaluation of the Federal Government Implementation of the Government Information Locator Service (GILS)*. Washington, DC: Government Printing Office, 1997. Web version available at <http://www.unt.edu/slis/research/gilseval/gilsdocs.htm>.

- Charles R. McClure and J. Timothy Sprehe. *Analysis and Development of Model Quality Guidelines for Electronic Records Management of State and Federal Websites*. [Project Funded by the National Historical Publications and Records Commission and to be completed January 1998]. Background information available at <http://istweb.syr.edu/~mcclure/>.

- Steven K. Wyman and Charles R. McClure. *User and System Based Quality Criteria for Evaluating Information Resources and Services Available from Federal Websites: Final Report*. Syracuse, NY: Syracuse University, School of Information Studies, 1997. Available from ERIC Clearinghouse; Executive Summary available at <http://istweb.syr.edu/~mcclure/>.

- Charles R. McClure and Cynthia Lopata. *Assessing the Academic Networked Environment:Strategies and Options*. Washington, DC: Coalition for Networked Information, 1996. Order information from <http://www.cni.org>.

- United States General Accounting Office. *Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments*. Washington, DC: September, 1997 <http://www.gao.gov/policy/ai97163.pdf>.

Ultimately, however, the success of networked, and especially Web-based information resources and services will depend on how well these resources and services meet *user* needs. User-based evaluation approaches are essential to learn how best to meet those needs.

An Evaluation of the Federal Government's Implementation of the Government Information Locator Service (GILS)

Principal Investigators

William E. Moen
<wem0002@jove.acs.unt.edu>
Instructor
School of Library and Information Sciences
University of North Texas

Charles R. McClure
<cmcclure@mailbox.syr.edu>
Distinguished Professor
School of Information Studies
Syracuse University

The Government Information Locator Service (GILS) is an innovative networked-based approach to assist users in locating government information resources. The U.S. Federal implementation of GILS began in December 1994 with the release of the Office of Management and Budget (OMB) Bulletin 95-01. In December 1995 an oversight body for GILS approved a recommendation by John Carlin, Archivist of the United States, for an evaluation study of GILS. Between September 1996 and March 1997, the Principal Investigators conducted extensive data collection and analysis to assess the current status, use, and user satisfaction with the U.S. Federal implementation of GILS. The report, *An Evaluation of the Federal Government's Implementation of the Government Information Locator Service (GILS): Final Report* issued in June 1997 details the findings and recommendations from the study.

The goal of the study was to understand how:
- GILS serves various groups
- GILS improves public access to government information
- Agencies are progressing with their implementations
- GILS works as a tool for information resources management.

The investigators considered multiple aspects of GILS, including policy, technology, content, and standards. Data collection activities included site visits to Federal agencies, focus groups with representatives of user communities and stakeholders, policy review, online user assessments of GILS implementations, analysis of Web server transaction logs, and a content analysis of GILS records.

The investigators concluded that the original vision of GILS as a service that assists users in locating and accessing publicly available government information is still appropriate and clearly supports important national policy goals. However, the original vision of a government-wide information locator service has not yet been achieved. Rather, there exists a collection of disparate agency GILS that are uneven in their implementation, coverage, and utility. GILS implementation has not achieved the vision of a *virtual card catalogue* of government information nor have the majority of agency GILS implementations matured into a coherent and usable government information locator service.

Successful GILS implementation were achieved by those agencies that committed sufficient resources, allocated staff, and defined for themselves how GILS could serve their information resources management needs, including the improvement of public access to agency information. Those agencies that had a history of supporting public access to its information embraced GILS more enthusiastically and perceived it as successful. Where top management had endorsed GILS and provided strong support, especially by dedicating staff and capital, GILS tended to be much more successful in its implementation.

Three factors in particular--downsizing government, expanding information management legislation and policy issues, and the increasing use of agency-based Web services-- affected agencies' commitment and focus regarding GILS. GILS simply was unable to compete for the attention, resources, and commitment from most agency administrators.

The investigators organized the findings and recommendations into four opportunity areas. The opportunities provide policymakers and implementors with a framework for addressing areas where the Federal GILS initiative can be improved.

I. Opportunity: Refocus GILS for Clarity of Purpose and Utility

Findings
- People are confused about GILS mission, purposes, and uses
- Expectations for GILS are evolving
- Government-wide administrative coordination and policy oversight are lacking
- Smaller agencies feel special burden and frustration
- Agencies' cultures and missions promote different commitments to GILS
- Intra-agency efforts reflect different enthusiasm for GILS
- GILS benefits compared to burdens are not clear

Recommendations
- Focus on public access to government information
- Focus scope of descriptions on network-accessible information resources
- Identify responsibilities and authority for policy leadership, government-wide coordination, and oversight
- Implement a refocused GILS initiative
- Require agency reporting on GILS progress and reward agencies that achieve stated objectives
- Ensure ongoing, user-based evaluation for continuous improvement

II. Opportunity: Improve GILS Efficacy in Networked Information Discovery and Retrieval (NIDR)

Findings
- Web technology has raised questions about the role of GILS
- GILS is an agency-centric, rather than government-wide, service
- GILS metadata are difficult to capture
- Limited updating and maintenance of GILS records
- No clear agreement on adequacy of GILS record data elements
- Different types of resources represented in GILS records
- User reaction to GILS is not positive
- GILS record display varies widely and is criticized by users
- User orientation and instruction is inadequate

Recommendations
- Continuously evaluate GILS policies and standards against emerging technologies, especially the Web
- Specify resource types and aggregation levels
- Enforce consistent use of metadata that are empirically demonstrated to enhance networked information discovery and retrieval
- Improve presentation of metadata
- Development policy and procedures for record maintenance
- Promote interagency cooperation and use of GILS for one-stop shopping functionality

III. Resolve GILS Relationships with Other Information Handling Functions

Findings
- GILS does not support records management activities
- GILS relationship with agencies inventories of information resources is not clear
- GILS relationship with FOIA and E-FOIA is unclear

Recommendations
- Uncouple the refocused GILS--as an information discovery and access service--from records management
- Derive GILS metadata from other information handling processes

IV. Increase GILS Awareness

Findings
- No program for GILS promotion and education exists
- Potential user communities lack familiarity with GILS
- GILS usage is limited

Recommendations
- Develop and formalize GILS promotion, education, and training strategies

The current U.S. Federal GILS initiative means different things to different people and has led to inconsistent implementations and a wide range of expectations of GILS. The Principal Investigators recommend that the Federal GILS initiative needs refocusing, aligned with the following vision:

An easy-to-use and coherent government-wide information search service available from one or more service points that enables users to discover, locate, select, and access publicly available government information resources (e.g., agency information systems, specific information dissemination products, and existing locators to those products) through standardized metadata that describe those resources and provide direct links to the described resource (e.g., full-text documents, other online services).

A refocused GILS must clearly articulate the function of a *government-wide* locator service, its scope of coverage, what people can legitimately expect it to provide, and the benefits it can offer.

One indication of the more limited scope of a refocused GILS is the recommendation that GILS and records management should be uncoupled. The current policy identifies GILS as a tool for records management. The study concluded, however, that GILS does not support records management activities. Further, expectations from GILS functionality (e.g., addressing electronic freedom of information requests) that are beyond a primary purpose of assisting users to discover and access government information should be tempered until such functionality can be demonstrated through pilot or prototype implementations.

The Principal Investigators recommend an initial set of actions to move towards specific solutions and encourage the success of the refocused GILS across the Federal government:

- Build consensus on the purposes, goals, and scope of the refocused GILS
- Identify who has authority, who is responsible, and where accountability will rest for GILS as a *government-wide* initiative
- Develop policy goals for GILS and translate them into specific, realistic, and measurable objectives
- Establish a GILS pilot program to identify problems and issues in both policy and implementation arenas.

The U.S. Federal government's implementation of GILS has been an ambitious undertaking. Critics may point out limitations and flaws in the current coverage, implementation, and usability of GILS. Equally important, however, is recognizing the progress to date in development a government information locator service and the commendable efforts by many people who have led and supported GILS implementations. GILS, as currently constituted and currently implemented, must be refocused and reengineered to accomplish its original goal as a government-wide information locator service that can improve citizen access to government information.